

666.295

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The computer program for viscosity and superficial tension of glass-melt and temperature factor of linear expansion of glass calculation with a wide range of a variation oxides, including oxides with variable valency is developed. The computer program differs the raised accuracy of calculation for nonconventional structures of glass-matrix.

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Fe₂O₃,ZrO₂, ZnO, CdO, PbO

[1 – 6]

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(Fe₂O₃, CoO, NiO, MnO, CuO, TiO₂, SnO₂),

(

[7],

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[8])

(
50 %).

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Delphi

Windows.

[9]

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$$S = 8,56 \cdot 10^{-7} \quad ^{-1},$$

-

$$S = 0,345,$$

$$S = 22,9 \cdot 10^{-3} \quad / \quad ,$$

$$7 - 8 \, \%.$$

,

-

: Li_2O , Na_2O , K_2O , MgO , CaO , SrO , BaO , ZnO , CdO , PbO ,
 MnO , Fe_2O_3 , CoO , NiO , B_2O_3 , Al_2O_3 , SiO_2 , TiO_2 , ZrO_2 , P_2O_5 ,
 CuO – , F –

, BeO SnO_2 – .

-

:

$$r \cdot 10^7 = \sum_{i=1}^n {}_i x_i \, , \tag{1}$$

$$a_i - , \, x_i -$$

, . %.

:

$$\lg y = a_0 + \sum_{i=1}^n a_i x_i + (c_0 + c_b x_b + c_{si} x_{si})/T + c/T^2 + c/T^3, \tag{2}$$

a_i – , x_i –
 , . %, – , ° , 0 , 0, C_b , C_{si} –
 .

:

$$t \cdot 10^3 = a_0 + \sum_{i=1}^n a_i x_i + c \cdot T, \quad (3)$$

a_i – , x_i –
 , . %, – , ° , 0, –
 .

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Ввод исходных данных

Файл Справка О программе

ХИМИЧЕСКИЙ СОСТАВ, вес. % Температура, °C

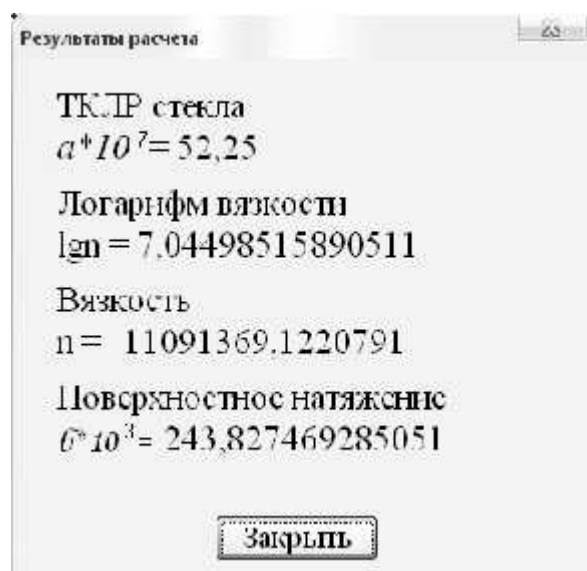
SiO ₂	CdO	
B ₂ O ₃	P ₂ O ₅	
Al ₂ O ₃	CuO	
Li ₂ O	TiO ₂	
Na ₂ O	Fe ₂ O ₃	
K ₂ O	CoO	
CaO	NiO	
MgO	MnO	
SrO	BeO	
ZrO ₂	SnC ₇	
BaO	F	
ZnO		
PbO	Сумма	

Расчет

. 1 –

100 %.

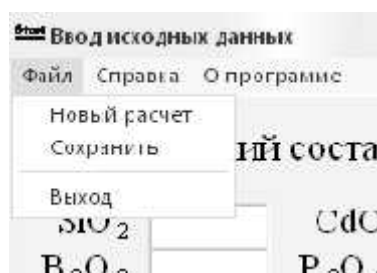
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2.
-



2 – « ».

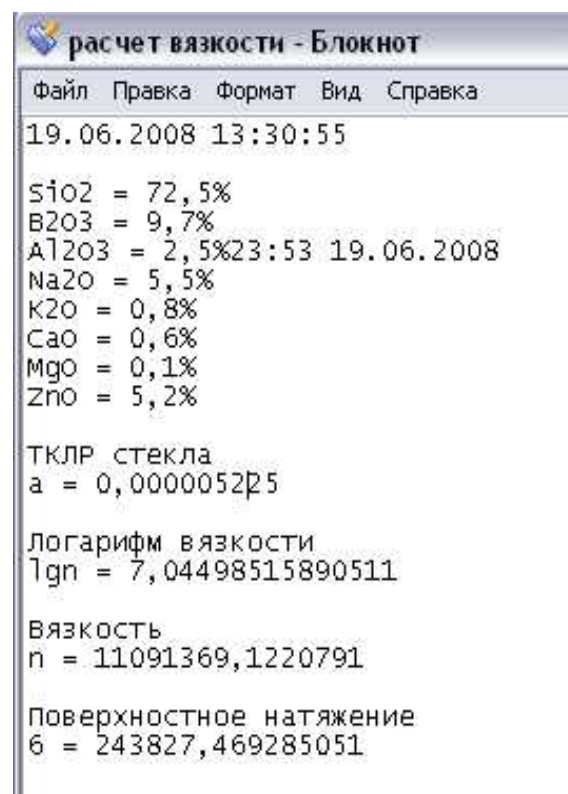
(3):

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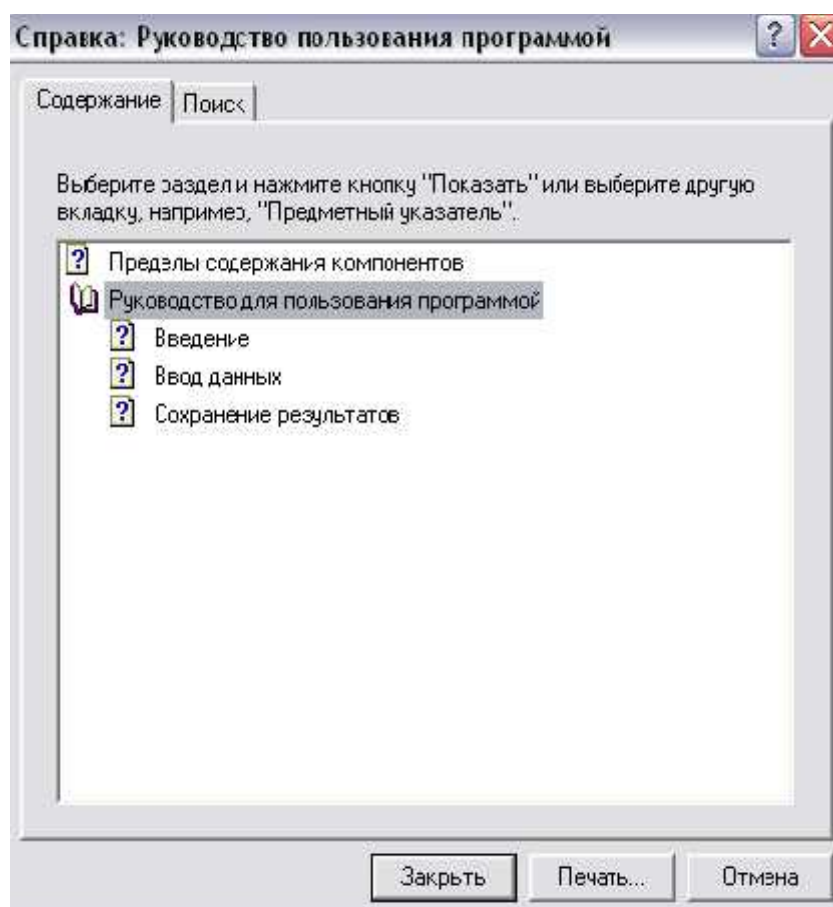


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(4).



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